

Correlation Between Waist Circumference and Physical Activity with Blood Pressure Among Lecturers at the State Polytechnic of Jember

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ABSTRACT

Hypertension is defined as a systolic blood pressure of at least 140 mmHg and/or a diastolic blood pressure of at least 90 mmHg. One of the contributing risk factors for uncontrolled blood pressure is physical activity and nutritional status, particularly obesity. Central obesity, indicated by increased waist circumference, is a known risk factor for elevated blood pressure. This study aimed to determine the correlation between waist circumference and physical activity with blood pressure among lecturers at the State Polytechnic of Jember. This research was an analytical observational study with a cross-sectional design. A total of 69 lecturers were selected using multistage random sampling, which consisted of cluster random sampling to select departments and simple random sampling to select participants. Waist circumference was measured using a measuring tape, blood pressure was measured using a digital sphygmomanometer, and physical activity was assessed using the International Physical Activity Questionnaire (IPAQ). Data were analyzed using Spearman's rank correlation test. The study found a significant correlation between waist circumference and both systolic and diastolic blood pressure (p-value = 0.00). However, there was no significant correlation between physical activity and systolic blood pressure (p-value = 0.129) or diastolic blood pressure (p-value = 0.850).

Keywords: *Hypertension, Waist Circumference, Physical Activity, Blood Pressure, Central Obesity, Lecturers*